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ABSTRACT

To ascertain what the most common or basic syllables were, 5,000 of the most frequent words (derived from the American Heritage List) were syllabicated graphemically. In the resulting computer assembled inventory, 3,402 separate or distinct syllables had frequencies of occurrence ranging from 1 to 230. Monosyllabic and two-syllable words each accounted for 40% of the 5,000 commonest words. Three-syllable words comprised 15% of the list; four-syllable words, 4%; five-syllable words, less than 1%; and six-syllable words were extremely rare. From this analysis, an alphabetical list of the top 10% of the syllables was developed. This knowledge should aid in the preparation of curriculum materials--especially for reading and spelling instruction--and serve as a data base for linguistic and educational research. (Author/RL)

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# THE COMMONEST SYLLABLES

Elizabeth Sakiey

From the literature we know that a great deal has been done to teach children how to divide words into syllables. Few attempts have been made, however, to determine what the commonest syllables are. With two exceptions (Dolch, 1938; Osburn, 1954), the inventorying of graphemic syllables has been ignored. Furthermore both of these investigations are out-of-date since they were based on reading materials and children's writings of the thirties. Thus currently they are inappropriate for most instruction and research needs. As Dewey (1950) pointed out, with respect to syllables there is no reliable data on even a small scale. For this reason, a graphemic syllable inventory based on an up-to-date source was undertaken.

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## Procedures

The most frequent 5,000 words from the Descending Order Frequency List (Sakiey, 1977), which is an edited version of the American Heritage List (Carroll, Davies, & Richman, 1971), were selected for syllabifying using for reference the American Heritage School Dictionary (1972) and the unabridged American Heritage Dictionary of the English Language (1971). Written materials selected from grades three through nine served as the data base for the American Heritage List. The number 5,000 was selected inasmuch as numerous authorities have stated that it is a small number of words that make up most materials (Johnson, 1972; Jones & Wepman, 1966).

On computer cards, each of the 5,000 commonest words were punched, in columns 1 to 25 (the alpha field), along with a syllable code number or numbers, in columns 26 to 31 (the numeric field). The number of letters in each syllable was determined, and that number was placed in the numeric field. For example, a word such as "revolutionary" was coded 312421, so that when scanning from left to right, the computer divided the word as "rev/o/lu/tion/ar/y." "Player" was coded as 42; "car," as 3.

The 5,000 coded syllable cards were then read into the computer and onto a magnetic disk. Utilizing both Fortran and Statistical Package for the Social Sciences programs, the words were broken into syllables, sorted alphabetically, and tallied.

## Results

None of the words among the 5,000 was comprised of more than six syllables, and six syllable words were very rare. Eighty percent of the

words were either monosyllabic or two syllables in length. Interestingly, the percentages of occurrence of one syllable and two syllable words were the same, 40 percent each. The frequencies of occurrence and the percentages for the various sized words may be noted in Table 1.

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Insert Table 1 here.

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In all there were 9,358 syllable occurrences in the 5,000 commonest words; and with frequencies ranging from 1 to 230, 3,402 distinct or different syllables were identified. Relatively few occurred more than 50 times, while 90 percent occurred four times or less indicating that most of the syllables counted are seldom encountered in written materials. Approximately 10 percent of the distinct syllables occurred five or more times and are listed alphabetically in Table 2.

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Insert Table 2 here.

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Roughly a third of these syllables could also be classified as monosyllabic words, such as "age," "air," "an," "as," and "at" to name a few. But this is not surprising since 40 percent of the 5,000 most frequent words were one syllable words. The contraction "n't" was the only one with a high enough frequency to appear on the list, and the single vowel syllables "a," "e," "i," "o," "u," and "y" all had frequencies of 36 or higher and thus appeared on the list.

## Implications

The utility of teaching syllabication rules must be questioned when one realizes that 80 percent of the 5,000 commonest words or 90 percent

of what we read is only one or two syllables in length. Also a second look should be given to sight word lists for beginning readers. Some revisions may be in order since many of the syllables on the alphabetical list function also as monosyllabic words, such as, "cent," "point," "press," "sand," "tend," "tract," and "ward," but are not on the basic word lists. They would appear to have perceptual unit utility not only as words but as syllables. Furthermore since the syllable is viewed by some as a natural perceptual unit (Gleitman & Rozen, 1973; Savin, 1972), beginning readers might be taught the common syllables as basic sight syllables along with the basic sight words.

In addition it has long been noted that a number of children have blending problems with individual phonemes, particularly special education pupils and remedial readers. Brown (1971) discovered that for children of 56 to 80 months blending two syllables was simpler than blending two phonemes. Therefore developing a beginning reading approach or a remedial one may be warranted.

## Conclusion

As Durkin (1976) has pointed out "The significance of syllables for phonics is basic: Syllables, not words, are analyzed" (p. 77). Thus knowledge of what the most common syllables are should aid in the preparation of curriculum materials, particularly in reading and spelling and serve as a data base for linguistic and educational research.

TABLE 1

DISTRIBUTION OF ONE THROUGH SIX SYLLABLE WORDS (N = 5,000)

| Number of Syllables in Words | Frequency | Percentage of 5,000 Words | Cumulative Frequency | Cumulative Percentage |
|---|---|---|---|---|
| 1 | 1,982 | .396 | 1,982 | 39.6 |
| 2 | 2,001 | .400 | 3,983 | 79.7 |
| 3 | 748 | .150 | 4,731 | 94.6 |
| 4 | 220 | .044 | 4,951 | 99.0 |
| 5 | 45 | .009 | 4,996 | 99.9 |
| 6 | 4 | .001 | 5,000 | 100.0 |
| Σ or Total | 5,000 | 1.000 | | |

TABLE 2

SYLLABLES IN ALPHABETICAL ORDER

| Syl. | F. | Syl. | F. | Syl. | F. |
|---|---|---|---|---|---|
| 1. a | 124 | 45. cle | 8 | 89. fa | 9 |
| 2. ac | 26 | 46. co | 8 | 90. fac | 11 |
| 3. act | 5 | 47. col | 15 | 91. fect | 5 |
| 4. ad | 26 | 48. com | 51 | 92. fer | 11 |
| 5. af | 9 | 49. come | 5 | 93. fi | 15 |
| 6. ag | 5 | 50. con | 64 | 94. fin | 6 |
| 7. age | 8 | 51. cor | 6 | 95. fish | 5 |
| 8. air | 5 | 52. coun | 6 | 96. fix | 5 |
| 9. al | 56 | 53. cov | 8 | 97. for | 17 |
| 10. als | 5 | 54. cu | 11 | 98. form | 6 |
| 11. am | 7 | 55. cul | 5 | 99. ful | 15 |
| 12. an | 39 | 56. cus | 6 | 100. gan | 7 |
| 13. ap | 19 | 57. cy | 9 | 101. gen | 11 |
| 14. ar | 26 | 58. da | 8 | 102. ger | 15 |
| 15. as | 15 | 59. dan | 6 | 103. gi | 5 |
| 16. at | 21 | 60. day | 14 | 104. gle | 7 |
| 17. ate | 6 | 61. de | 55 | 105. go | 6 |
| 18. au | 9 | 62. den | 10 | 106. grand | 5 |
| 19. ba | 8 | 63. der | 25 | 107. great | 5 |
| 20. bat | 5 | 64. ders | 5 | 108. hap | 8 |
| 21. be | 30 | 65. di | 46 | 109. har | 6 |
| 22. ber | 12 | 66. dif | 8 | 110. head | 7 |
| 23. bet | 6 | 67. dis | 21 | 111. heav | 5 |
| 24. bi | 5 | 68. dle | 6 | 112. high | 7 |
| 25. ble | 25 | 69. dy | 12 | 113. ho | 5 |
| 26. bles | 6 | 70. e | 67 | 114. hunt | 5 |
| 27. bod | 6 | 71. east | 5 | 115. i | 112 |
| 28. bor | 7 | 72. ed | 114 | 116. ic | 11 |
| 29. but | 8 | 73. ef | 6 | 117. ies | 8 |
| 30. by | 7 | 74. el | 18 | 118. il | 7 |
| 31. ca | 20 | 75. en | 42 | 119. im | 9 |
| 32. cal | 20 | 76. ence | 8 | 120. in | 78 |
| 33. can | 12 | 77. end | 6 | 121. ing | 230 |
| 34. cap | 6 | 78. ent | 6 | 122. ings | 10 |
| 35. car | 13 | 79. er | 129 | 123. ion | 5 |
| 36. cat | 7 | 80. ered | 6 | 124. is | 17 |
| 37. cate | 5 | 81. ern | 8 | 125. ish | 6 |
| 38. cen | 5 | 82. ers | 26 | 126. it | 12 |
| 39. cent | 7 | 83. es | 98 | 127. its | 5 |
| 40. char | 5 | 84. est | 18 | 128. jo | 5 |
| 41. ci | 13 | 85. et | 12 | 129. ket | 8 |
| 42. cial | 6 | 86. ev | 7 | 130. la | 18 |
| 43. cir | 6 | 87. eve | 8 | 131. land | 11 |
| 44. cit | 8 | 88. ex | 58 | 132. lands | 6 |

(continued)

TABLE 2 (continued)

| Syl. | F. | Syl. | F. | Syl. | F. |
|---|---|---|---|---|---|
| 133. lar | 18 | 179. net | 5 | 225. rep | 7 |
| 134. lat | 5 | 180. new | 5 | 226. ri | 32 |
| 135. lead | 5 | 181. ni | 15 | 227. ried | 5 |
| 136. lec | 8 | 182. ning | 8 | 228. ro | 9 |
| 137. lect | 5 | 183. no | 12 | 229. round | 5 |
| 138. lent | 5 | 184. nor | 7 | 230. row | 5 |
| 139. less | 5 | 185. n't | 8 | 231. ry | 37 |
| 140. let | 6 | 186. nu | 8 | 232. sa | 5 |
| 141. li | 9 | 187. ny | 14 | 233. sand | 5 |
| 142. light | 11 | 188. o | 51 | 234. sat | 6 |
| 143. lin | 5 | 189. ob | 11 | 235. se | 13 |
| 144. lo | 9 | 190. oc | 8 | 236. sec | 6 |
| 145. long | 6 | 191. of | 11 | 237. self | 5 |
| 146. low | 15 | 192. on | 13 | 238. sen | 9 |
| 147. lu | 7 | 193. one | 5 | 239. sent | 5 |
| 148. ly | 119 | 194. op | 9 | 240. ser | 6 |
| 149. ma | 23 | 195. or | 26 | 241. set | 10 |
| 150. mag | 10 | 196. ous | 13 | 242. ship | 5 |
| 151. main | 8 | 197. out | 9 | 243. si | 22 |
| 152. mal | 5 | 198. pa | 18 | 244. side | 9 |
| 153. man | 20 | 199. par | 15 | 245. sim | 5 |
| 154. mar | 8 | 200. part | 7 | 246. sion | 19 |
| 155. mat | 6 | 201. pe | 17 | 247. sions | 5 |
| 156. me | 7 | 202. pen | 14 | 248. sis | 5 |
| 157. meas | 6 | 203. per | 29 | 249. so | 16 |
| 158. mem | 6 | 204. pi | 13 | 250. some | 10 |
| 159. men | 9 | 205. play | 6 | 251. son | 15 |
| 160. ment | 26 | 206. ple | 12 | 252. sons | 5 |
| 161. ments | 10 | 207. ples | 6 | 253. south | 6 |
| 162. mer | 17 | 208. ply | 6 | 254. stand | 5 |
| 163. mi | 5 | 209. po | 19 | 255. su | 7 |
| 164. mil | 5 | 210. point | 5 | 256. sub | 10 |
| 165. min | 9 | 211. por | 7 | 257. sug | 5 |
| 166. mis | 8 | 212. port | 6 | 258. sun | 6 |
| 167. mo | 13 | 213. pos | 11 | 259. sup | 8 |
| 168. mon | 9 | 214. prac | 5 | 260. sur | 10 |
| 169. moth | 5 | 215. pre | 14 | 261. ta | 16 |
| 170. mu | 12 | 216 pres | 8 | 262. tain | 11 |
| 171. mul | 6 | 217. press | 6 | 263. tal | 9 |
| 172. my | 8 | 218. pro | 28 | 264. te | 8 |
| 173. na | 22 | 219. ra | 17 | 265. ted | 8 |
| 174. nal | 8 | 220. ral | 5 | 266. tel | 5 |
| 175. near | 5 | 221. re | 90 | 267. tem | 8 |
| 176. nel | 5 | 222. read | 7 | 268. ten | 13 |
| 177. ner | 6 | 223. rec | 9 | 269. tend | 7 |
| 178. ness | 8 | 224. rect | 5 | 270. ter | 60 |

(continued)

TABLE 2 (continued)

| Syl. | F. | Syl. | F. | Syl. | F. |
|---|---|---|---|---|---|
| 271. ters | 10 | 288. tra | 6 | 305. val | 6 |
| 272. the | 6 | 289. tract | 5 | 306. var | 6 |
| 273. ther | 7 | 290. trav | 5 | 307. vel | 5 |
| 274. ti | 35 | 291. tri | 8 | 308. ven | 8 |
| 275. tic | 9 | 292. tro | 8 | 309. ver | 13 |
| 276. ties | 9 | 293. try | 7 | 310. vi | 19 |
| 277. tin | 8 | 294. tu | 10 | 311. vid | 6 |
| 278. ting | 6 | 295. ture | 18 | 312. vis | 8 |
| 279. tion | 83 | 296. tures | 6 | 313. ward | 9 |
| 280. tions | 26 | 297. ty | 39 | 314. way | 7 |
| 281. tive | 14 | 298. u | 36 | 315. west | 5 |
| 282. tle | 15 | 299. um | 7 | 316. where | 5 |
| 283. to | 29 | 300. un | 22 | 317. wil | 6 |
| 284. tom | 5 | 301. up | 8 | 318. win | 6 |
| 285. ton | 7 | 302. ure | 7 | 319. won | 6 |
| 286. tor | 13 | 303. us | 5 | 320. work | 6 |
| 287. tors | 5 | 304. va | 8 | 321. writ | 5 |
| | | | | 322. y | 63 |

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